GOVERNMENT OF INDIA
SPACE
LOK SABHA

UNSTARRED QUESTION NO:2845
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Mechanism to Deal with Disasters
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Will the Minister of SPACE be pleased to state:

(a) whether any mechanism has been developed by Indian Space Research Organisation (ISRO) to deal with disasters;
(b) if so, the details thereof;
(c) the agencies with which coordination has been developed at the State-level in this regard;
(d) the special efforts made by the Government for promotion and propagation of education on disaster management in inaccessible and remote areas; and
(e) the details of research and skill development programmes in disaster management in the country?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

(a)&(b) Under its Disaster Management Support (DMS) Programme, Indian Space Research Organisation (ISRO) supports the disaster management activities in the country by means of providing − (i) Aerial and Space based data & information services and (ii) Satellite based emergency communication services.

To enable these services, ISRO has set up a Decision Support Centre (DSC) in 2005 at National Remote Sensing Centre (NRSC), Hyderabad for providing data, value added products and information services in near-real time to concerned Central and State departments. The DSC presently supports the needs of various natural disasters such as Cyclone, Flood, Earthquake, Tsunami, Landslide and Forest Fire. In respect of agricultural drought, ISRO has developed and transferred the methodology to Mahalanobis National Centre for Crop Forecasting (MNCFC) under Department of Agriculture and Cooperation & Farmers Welfare (DAC&FW). ISRO also enables satellite based emergency communication services through portable satellite phones and transportable satellite terminals to facilitate data and voice transfer between inaccessible areas. Further, in association with India Meteorological Department (IMD) more than 200 Cyclone Warning Dissemination Systems are installed in the coastal areas.

(c) ISRO works in close coordination with State Disaster Management Authorities (SDMAs), State Disaster Management (Relief) Departments (DMD), Water Resources Departments (WRDs), Forest Departments, State Remote Sensing Application Centres (SRSACs) and other nodal agencies associated with disaster management in the States. Also, at the behest of Ministry of Home Affairs (MHA), ISRO has established a satellite based Virtual Private Network (VPN) comprising of 44 nodes, which link-ups National Emergency Operations Centre (NEOC), State Emergency Operations Centres (SEOCs), Data providing agency nodes and Observational nodes.

(d) National Institute of Disaster Management (NIDM), Delhi has been conducting training programmes on disaster management through satellite communication technology to reach remote and inaccessible areas, web based online courses on disaster management and conducts training on Community Based Disaster Management. Further, NIDM is working on development of Disaster Management courses through e-pathshala programme of UGC.
ISRO/DOS is conducting training programmes to State Government officials, National Disaster Response Force (NDRF) and central nodal departments on utilisation of geospatial products and services for Disaster Management including north-eastern States. During 2015 and 2016 NRSC has trained 483 officers on utilisation of NDEM portal comprising of geospatial database, value added products and services in support of emergency management.

(e) Under its DMS programme, ISRO undertakes research towards the development of methodology for early warning systems, tools & techniques for generating value added products; geospatial modeling techniques, web & mobile based applications and satellite based emergency communication systems.
Towards skill development, DSC regularly conducts orientation trainings for the state level disaster management functionaries to familiarise them with space technology, value added products & services and its utilisation during disaster relief and mitigation. Also, Indian Institute of Remote Sensing (IIRS) at Dehradun regularly conducts capacity building programmes for the disaster management professionals at senior, middle and field levels.

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